INDEX FOR VOLUME 35

AUTHOR AND SUBJECT INDEX
New species in **blackface type**
Junior authorship indicated by pages in "( )"

Prepared by Ernest P. DuCharme, Minnesota Agricultural Experiment Station, University Farm, St. Paul, Minnesota.

ABBOTT, E. V., 723
ÅBERG, EWART, 368
Abies concolor, 425
Acinopterus angulatus, 737
Acylomus ergoti, 357
Aegilops crassa, Erysiphe graminis on, 63
  cylindrica, Erysiphe graminis on, 63
  specialization of Erysiphe graminis on, 396
  triuncialis, Erysiphe graminis on, 63
Agrobacterium tumefaciens, 521
Agropyron caninum, Erysiphe graminis on, 63
    stripe rust on, 885
  ciliare, stripe rust on, 885
  cristatum, 234
    Erysiphe graminis on, 63
    stem smut studies on, 526
  desertorum, Erysiphe graminis on, 63
  inerme, 234
    Erysiphe graminis on, 63
  intermedium, Erysiphe graminis on, 63
  repens, 234, 243, 529
    Erysiphe graminis on, 63
  semicostatum, Erysiphe graminis on, 63
    stripe rust on, 885
  sibiricum, Erysiphe graminis on, 63
  Smithii, 234
    Erysiphe graminis on, 63
  specialization of Erysiphe graminis on, 396
  spicatum, Erysiphe graminis on, 63
  striatum, Erysiphe graminis on, 63
  subsecundum, Erysiphe graminis on, 63
  trachycaulum, 234
    Erysiphe graminis on, 63
    stem smut studies on, 525
Agrostis alba, 243
    Erysiphe graminis on, 63
  exarata, Erysiphe graminis on, 63
  hiemalis, Erysiphe graminis on, 63
  palustris, Erysiphe graminis on, 63
  scabra, Erysiphe graminis on, 63
  specialization of Erysiphe graminis on, 396
  spica-venti, Erysiphe graminis on, 63
  stolonifera, Erysiphe graminis on, 63
Air dissemination, Hypoxylon pruinatum, 82
Alfalfa, 809, 950
  Ascochyta imperfecta on, 838
  Rhizoctonia solani root canker of, 832
ALLINGTON, WILLIAM B., 857
ALLISON, J. LEWIS, 233, (241)
Allomyces arbusculus, factors influencing sporangia development, 655
Alopecurus aequalis, Erysiphe graminis on, 63
  pratensis, Erysiphe graminis on, 63
  specialization of Erysiphe graminis on, 396
Alternaria, on alfalfa seed, 843
  brassicae, black leaf-spot of crucifers, 1002
  compacta, 252
  decay of squash during storage, 656
  herculea, gray leaf-spot of crucifers, 1002
  longipes, on peppers, 283
  on soybean seed, 3
  ricini, on castor bean, 249
  solani, control of, on tomatoes, 656
    control of, with copper fungicides, 120
    light and media in relation to sporulation, 483
    resistance of tomato to, 19, 25, 933
  tenuis, 253
  tomato, light in relation to sporulation, 483
AMERICAN PHYTOPATHOLOGICAL SOCIETY,
  annual meeting report, 262
  New England Division, report of annual meeting, 654
  Potomac Division report of annual meeting, 483
AMORAL, J. FRANCO DO, (135)
Ammonium polysulphide, pear scab control, 715
ANDERSEN, E. M., (655)
ANDRUS, C. F., 16, (25)
Anguillulina tritici, 288
Anguina tritici, prevalence of, on wheat, 288
Anomala orientalis, soil fumigation for, 771
Ansatospora acerina, n. comb., 220
  macrospora, nomenclature of, 218
Anthoxanthum odoratum, Erysiphe graminis on, 63
Anthracnose, control of on tomato with organic fungicides, 485
  of garden peas, 565
  of grapes in China, 339
  resistance of flax to, 688
  of roses in China, 339
  of tobacco, 598
Aphelenchoides fragariae, 711
  olesistus, on Easter lilies, 572
Aphids, vectors of carnation viruses, 45
Aphis gossypii, vector of lily-rosette virus, 129
Apium graveolens (See Celery)
Apple, black root rot of, 142
  effect of fertilizers on susceptibility of apple to black root rot, 207

Elsinöe piri on, 486
measles, relation to leafhopper oviposition, 870
Polyporus versicolor on, 574
Apricot, line pattern virus on, 996
Arachis hypogea (See Peanut)
Arasan alfalfa seed treatment, 849
control of Alternaria on crucifers, 1006
control of damping-off in peas, 777
control of onion smut with, 654
seed treatment of peas with, 194
use for sorghum smut, 645
Arborvitae, blight of, 181
ARK, P. A., 142
ARNDT, C. H., 747
ARNY, D. C., 572, 781
Arrhenatherum elatius, Erysiphe graminis on, 63, 396
ARRUDA, S. C., 135
Ascochyta, on garden peas, 565, 977
imperfecta, studies on, 838
lethalis, 840
Asparagus, Corticium solani from, 374
Aspergillus flavus, on soybean seed, 8
fumigatus, on soybean seed, 8
glaucus, on soybean seed, 8
niger, 1018
on soybean seed, 8
ochraceus, on soybean seed, 8
in relation to concealed damage in peanut, 48
on soybean seed, 3
Aster yellows, 805
on flax, 603
on guayule, 737
Asteroid spot, of myrobalan plum, 47
Atriplex argentea subsp. expansa, 604
bracteosa, 604
Avena sativa (See oats)

Babiana spp., Fusarium orthoceras var. gladioli on, 922
Bacteria on cotton seed, 752
Bacterial canker, of cowpea, 487
Bacterial leaf blight of corn, 486
Bacterial spot, Ribes aureum, 1008
Bacterial streak, Phleum pratense, 937
Bacterium albilineans (see Phytomonas albilineans)
angulata, 1018
citrarefaciens, black pit of citrus, 942
citriputeale, black pit of citrus, 942
gypsophilae, control of on Gypsophila, 368
pruni, 487
tabaci, 1018
tumefaciens, 481
vignae, bacterial canker of cowpea, 487
BAIN, DOUGLAS C., (488), 739, 822
BAINES, R. C., 147
BALD, J. G., 585, 591
Barley, effect of vernalization on the development of stripe in, 367
inheritance of resistance to stripe, 781
inoculation method with loose smut, 640
Pseudomonas alboprecipitans on, 486
Septoria nodorum on seed of, 52
stripe, inheritance of resistance to, 781
physiologic specialization of Helminthosporium gramineum, 571
stripe rust on, 885
BARRATT, R. W., 654,(655)
BARRUS, M. F., 659
Bean, control of powdery mildew on, 898
hyacinth-bean scab, 339
Lima, control of nematode on, 780
longevity of the bacterial wilt pathogen, 743
pink, pathogenicity of Corticum solani isolates on, 380
red spot of broad bean, 945
rust, control of with fungicides, 489
pathogenicity of Rhizoctonia solani isolates on, 380
susceptibility to Fusarium yellows, 655
Beckmannia eruceaeformis, Erysiphe graminis on, 63
specialization of Erysiphe graminis on, 396
syzigachne, Erysiphe graminis on, 63
BEECHER, F. S., 483
Beet mosaic, on guayule, 73
Begonia sp., 809
Benincasa hispida, reaction to Erysiphe cichoracearum, 534
Berberis acuminata, aecial host of Puccinia graminis, 418
amurensis, aecial host of Puccinia graminis, 418
dielsiana, aecial host of Puccinia graminis, 418
gagnepainii, aecial host of Puccinia graminis, 418
henryana, aecial host of Puccinia graminis, 418
julianae, aecial host of Puccinia graminis, 418
levis, aecial host of Puccinia graminis, 418
pruinosa, aecial host of Puccinia graminis, 418
sargentiana, aecial host of Puccinia graminis, 418
silva-taroucana, aecial host of Puccinia graminis, 418
virgetorum, aecial host of Puccinia graminis, 418
wilsonae, aecial host of Puccinia graminis, 418
Beta vulgaris, Rhizoctonia solani on, 378
Betula alba, susceptibility to Phytophthora cinnamomi, 174
papyrifera, susceptibility to Phytophthora cinnamomi, 174
Bichloride of mercury, 487
Big vein, artificial transmission of, in lettuce, 484
Biographies,
BULLER, A. H. R., 273, 577
DOPP, E. A., 274, 745
GAINES, E. F., 275
HORNE, W. T., 1, 276
PARSON, H. E., 281
ROLFS, P. H., 277, 491
SWINGLE, D. B., 278
THOMPSON, N. F., 149
WHETZEL, H. H., 279, 659

Biometry, method of measuring plant diseases, 655
polymodal curves in biological research, 654
Black cherry, Polyporus versicolor and heart rot of, 574
Black fire, predisposition of tobacco to, 754
Black leaf-spot, of crucifers, 1002
Black pit, of citrus, 942
Black root-rot,
control of in tobacco plant bed, 483
effect of fertilizers on the susceptibility of apple trees to, 207
of apple, 142
Black stem, of alfalfa, 838
Blight of oriental arborvitae, 181
Blister rust of white pine, 406
Blossom end rot of pepper, 283
Bluegrass, specialization of pathogenicity of Erysiphe graminis in relation to improvement of, 62
Bluestone, injury to foliage, 897
BOHN, G. H., 1008
Borax pre-storage treatment for seed sweet potato, 48
sweet potato seed treatment, 486
Bordeaux mixture, control of Alternaria blight on tomato, 656
control of tomato and potato diseases with, 485
pear scab control, 715
Botrytis cinerea, 945
decay of squash during storage, 656
fabae, red spot of broad bean, 945
BOYD, O. C., (656)
BOYLE, ALICE M., (521)
BOYLE, L. W., (486)
Brachycome iberidifolia, cranberry false blossom on, 809
Bractscale, 604
Breeding, oats for crown rust resistance, 143
tomatoes, for resistance to Alternaria, 25
for resistance to Septoria leaf-spot, 16
BREMER, H., 283
BRIERLEY, PHILIP, 129
Bromus anomalus, 234
arvensis, Erysiphe graminis on, 63
brizaeformis, 234
Erysiphe graminis on, 63
carinatus, 234
Erysiphe graminis on, 63
catharticus, Erysiphe graminis on, 63
ciliatus, 234
commutatus, Erysiphe graminis on, 63
erectus, 234
inermis, brown leaf-spot of, 241
Erysiphe graminis on, 63
Selenophoma bromigena leaf-spot of, 233
japonicus, 234
Erysiphe graminis on, 63
stripe rust on, 885
laevipes, 234
lanuginosus, 234
macrostachys, 234
Erysiphe graminis on, 63
var. lanuginosus, Erysiphe graminis on, 63
madritensis, 234
marginatus, 234
Erysiphe graminis on, 63
mollis, 234
Erysiphe graminis on, 63
polyanthus, 234
Erysiphe graminis on, 63
purgans, Erysiphe graminis on, 63
racemosus, 234
remotiflorus, relation to stripe rust, 885
rigidus, 234
Erysiphe graminis on, 63
rubens, 234
Erysiphe graminis on, 63
secalinus, 234
var. velutinus, Erysiphe graminis on, 63
specialization of Erysiphe graminis on, 396
squarrosus, Erysiphe graminis on, 63
tectorum, 234
Erysiphe graminis on, 63
relation to stripe rust, 885
var. glabratus, Erysiphe graminis on, 64
vulgaris, 234
Erysiphe graminis on, 64
BROWN, J. G., 521
Brown leaf-spot of Bromus inermis, 241
Bryonia dioica, reaction to Erysiphe cichorocearum, 534
Bryophyllum, control of crown gall on, with penicillin, 521
Buckskin disease, anatomy of diseased peach and cherry trees, 610
Bud rot, strawberry, 710
Bunt, races and distribution, 879, 955
BURKHOLDER, WALTER H., 744

Cabbage, 950
Calcium chloride, antidote to copper in its toxicity to fungi, 488
antidotes the effect of copper sulphate toxicity to Sclerotinia fructicola, 56
cyanamide, use in tobacco plant bed, 483
hypochlorite, for control of the gall disease of Gypsophila, 368
propionate (See Mycoban)
pre-storage treatment for seed sweet potato, 483
Calendula officinalis, cranberry false blossom on, 809
Callistephus chinensis, 809
Calomel, use in control of the gall disease of Gypsophila, 368
CAMPBELL, W. A., 213, 636
Canada wild rye (See Elymus canadensis)
Canavalia sp., 341
Canker, Phytophthora canker of Cinchona, 138
Cantaloupe, control of powdery mildew on, 905
Carbohydrates stored in wood and bark of shortleaf pine, 109

Carnation, control of red spiders with dithane, 657
viruses of, 37
Carrot, 950
cranberry false blossom on, 809
CARSNER, EUBANKS, (910)
CARTER, WALTER, 305, 316
CARVAJAL, FERNANDO, 744
CASH, L., (486)
Castanea alabamensis, Phytophthora root disease on, 167
alnifolia, susceptibility to Phytophthora cinnamomi, 172
ashei, susceptibility to Phytophthora cinnamomi, 172
crenata, Phytophthora root disease of, 167
dentata, Phytophthora cinnamomi root disease of, 162
henryi, susceptibility to Phytophthora cinnamomi, 172
margaretta var. arcuata, susceptibility to Phytophthora cinnamomi, 172
mollissima, susceptibility to Phytophthora cinnamomi, 172
ozarkensis, susceptibility to Phytophthora cinnamomi, 172
pumila, Phytophthora root disease of, 167
sativa, susceptibility to Phytophthora cinnamomi, 172
seguinii, susceptibility to Phytophthora cinnamomi, 172
Castor bean, Alternaria ricini on, 249
scab of, 339
Catalpa, Polyporus versicolor on, 574
Celery, control of nematode on, 776
Corticium solani from, 374
cranberry false blossom on, 809
crater rot and blotch of, 140
Erwinia carotovora on, 140
mosaic, on guayule, 737
Celtis occidentalis, Polyporus tulipiferus on, 220
Centaurea imperialis, cranberry false blossom on, 809
Cephalothecium roseum, on soybean seed, 8
Ceratostomella ulmi,
influence of temperature on, 302
pathogenicity of, 257
saprogenic activities, 675
Cercis chinensis, 951
Cercospora acerina, synonym of Ansatospora acerina, 220
cari, synonym of Ansatospora acerina, 220
leaf-spot of Physostegia, 324
macrospora, synonym of Ansatospora acerina, 220
nicotiana, 1019
thujina, n. sp., on arborvitae, 188
Cercosporella acerina, synonym of Ansatospora acerina, 220
Cereals, Septoria nodorum on seed of, in Canada, 51
Chaetomium sp., on soybean seed, 4
CHAMBERLAIN, D. W., 241
CHEO, C. C., 339
Cherry, anatomy of buckskin-diseased trees, 610
line pattern virus on, 996
transmission of peach wart to, 607
Chestnut, Phytophthora cinnamomi root disease of, 162
Polyporus versicolor on Asiatic, 574
CHILDS, LEROY, (714)
Chinkapin, Phytophthora root disease of, 165
Chlorogenus callistephi, var. vulgaris, 805
vaccinii, 805
Chloropicrin, soil fumigation with, 771
Chlorosis, of seedlings of Hevea brasiliensis, 487
Chlorotic streak, sugar-cane, 723
CHRISTENSEN, CLYDE M., (222)
Chrysanthemum, Verticillium wilt, 146
CHU, VONG-MAY, 288
Claviceps purpurea, field inoculation of rye with, 353
Cinchona, Phytophthora and stem canker of, 138
Citron, galls on the roots of citron-watermelon hybrids, 480
Citrullus vulgaris, reaction to Erysiphe cichoracearum, 534
Citrus, black pit of, 842
technique for hastening psorosis symptoms on, 535
Cladosporium fulvum, resistance of tomato to, 19
CLAYTON, E. E., 483
Cloanthanus irroratus, 737
Clover, Phoma terrestris from, 744
COCHRANE, VINCENT W., 361, 458
Coleus Blumei, mosaic of, 223
Colladonus montanus, 737
Collar rot, resistance of tomato to, 25
Colletotrichum gossypii, on cotton seed, 752
lini, resistance of flax to, 688
pisi, of garden peas, 565
on tobacco, 599
viciae, 977
villosum, n. sp., leaf disease on vetch, 988
Concealed damage in peanut, 480
Conifers, Fusarium damping-off in, 421, 440, 498
Constant temperature tanks, design for, 213
COOLEY, J. S., 143, 207
Copper acetate, eradicant spray for powdery mildew, 900
acetonate, pear scab control, 715
ammonia, eradicant spray for powdery mildew, 900
Bordo, pear scab control, 715
carbonate, use on sorghum, 645
compounds of, in bean rust control, 489
chloride, eradicant spray for powdery mildew, 900
fungicides in control of tomato blight, 120
hydro "40," pear scab control, 715
oxalate, pear scab control, 715
oxide, pear scab control, 715
oxychloride, pear scab control, 715
sulphate, control of Alternaria on tomato, 656

phosphate, pear scab control, 715
salts as antidotes to copper toxicity to fungi, 487
silicate, pear scab control, 715
sulphate, basic, control of sorghum smut with, 645
eradicant spray for powdery mildew, 895
pear scab control, 715
Corn, Helminthosporium turcicum leaf blight of, 485
leaf blight and stalk rot of, 486
nematode damage to, 935
Nigrospora ear rot of, 552
Phoma terrestris on, 744
physiologic specialization of Helminthosporium turcicum on, 487
red-leaf disease of, 487
water soaking studies, 766
Corticium solani, culture types and pathogenicity of, 371
vagum, 742
Corynebacterium flaccumfaciens, longevity of, 743
COSTA, A. S., 1030
Cotton, Fusaria in seed, 542
Rhizoctonia leaf-spot, perfect stage, 741
viability and infection of seed, 747
COURTNEY, WILBUR D., 572
Cowpea, bacterial canker of, 487
Helminthosporium sp., leaf-spot on, 488
leaf-spot, 822
COX, C. E., 483, (486)
Cranberry, studies on false blossom, 805
CRANDALL, BOWEN S., 140, 162
CRANE, H. L., 281
CREAGER, D. B., 223, 230
Crocus sp., Fusarium orthoceras var. gladioli on, 922
Cronartium occidentale, 407
ribicola, defoliating effect on Ribes, 406
Crown gall, application of penicillin to, 521
Cruciferae, two Alternaria diseases of, 1002
Cucumber, control of powdery mildew on, 907
mosaic and desiccation in leaf tissue, 488
mosaic, on guayule, 737
Cucumis anguria, reaction to Erysiphe cichoracearum, 534
melo, reaction to Erysiphe cichoracearum, 534
metuliferus, reaction to Erysiphe cichoracearum, 534
sativus, reaction to Erysiphe cichoracearum, 534
Cucurbitaceae, reaction to mildew, 533
Cucurbita ficiolia, reaction to Erysiphe cichoracearum, 534
foetidissima, reaction to Erysiphe cichoracearum, 534
maxima, reaction to Erysiphe cichoracearum, 534
moschata, reaction to Erysiphe cichoracearum, 534
palmata, reaction to Erysiphe cichoracearum, 534
pepo, reaction to Erysiphe cichoracearum, 534
Culture media, synthetic media for Phymatotrichum omnivorum, 159
Cunninghamella echinulata, on soybean seed, 8
Cupressus sempervirens, blight of, 181
Cuprocide, yellow, seed treatment of peas with, 194
Cuprous oxide (yellow), control of tomato blights, 121
Curly-top, flax, 603
of guayule, 737
Currant, bacterial spot of, 1010
Curvularia, sp., salts as antidotes to copper in its toxicity to, 487
Cuscuta arvensis, 701
californica, 70
campestris, transmission of false blossom of cranberry, 806
Cyamopsis tetragonolobus, Rhizoctonia solani on, 834
Cyanamid, use in tobacco plant beds, 483
Cyclanthera explodens, reaction to Erysiphe cichoracearum, 534
pedata, reaction to Erysiphe cichoracearum, 534
Cypress, blight of, 181

Dactylis glomerata, Erysiphe graminis on, 397
Damping-off in conifers, 421
Danthonia spp., specialization of Erysiphe graminis on, 397
DARLEY, ELLIS F., 222
Datura stramonium, 701
Brown's river virus on, 593
Daucus carrota (See Carrot)
DAVIS, WILLIAM C., (140)
D-D mixture, soil fumigation with, 771
use in tobacco plant bed, 483
Decay, prevention of, for houses on wet sites, 484
DEMAREE, J. B., 710
Deschampsia caespitosa, Erysiphe graminis on, 64
danthonioides, Erysiphe graminis on, 64
specialization of Erysiphe graminis on, 397
Dianthus sp., cranberry false blossom on, 809
Dichloro naphthoquinone (See U. S. R. 604)
Dichloropropane, 771
Dichloropropylene, 771
DICKSON, JAMES G., 149
Die-back, of Viburnum, 145
DIEHL, W. W., 483
DILLER, J. D., 484
Dimethyl dithiocarbamates, control of tomato and potato diseases with, 485
Dimorphotheca aurantiacum, cranberry false blossom on, 809
Diplodia theobromae, on cotton seed, 752
in relation to concealed damage in peanut seed, 480
Disodium ethylene bisdithiocarbamate (See Dithane)
Distribution, of Alternaria ricini, 254
Botrytis fabae, 946

Colletotrichum **villosum** n. sp., 977
races of barley smut, Ustilago hordei, 974
of Tilletia caries and T. foetida, 955
tip-burn of sugar beets, 911
Dithane, bean rust control with, 489
control of red spider with, 657
control of tomato and potato diseases, 485
Dithiocarbamates, control of bean rust with, 489
Dolichos lablab, scab of, in China, 341
DOOLITTLE, S. P., 484, 695
DORAN, W. L., 654
DRECHSLER, C., 484
DUBAY 1452-C, control for sorghum smut, 645
DUNEGAN, JOHN C., 870
Dusting, new developments in, 485
Dutch elm disease, effect of temperature on, 302
investigations in Massachusetts, 656
pathogenicity of, 257
saprogenic activities of the pathogen, 675

Early blight, control of with organic fungicides, 485
control of, on tomato with copper fungicides, 120
Ecballium elaterium, reaction to Erysiphe cichoracearum, 534
Echinocystis macrocarpa, reaction to Erysiphe cichoracearum, 534
Eggplant, Verticillium wilt on, 147
ELLETT, C. W., (145)
ELLIOTT, CHARLOTTE, 485
Elm, Dutch elm disease in Massachusetts, 656
phloem necrosis, 489
Elsinöe ampelina, grape anthracnose in China, 339
canavaliae, 346
diseases in Yunnan, China, 339
dolichi, on hyacinth bean in China, 343
fawcetti, scab of sour orange in China, 340
phaseoli, 350
on Lima bean, 488
piri, on pear and apple, 486
Elymus canadensis, 234
Erysiphe graminis on, 64
stem smut studies on, 529
condensatus, 529
Erysiphe graminis on, 64
dahuricus, Erysiphe graminis on, 64
glaucus, 234, 525
Erysiphe graminis on, 64
junceus, Erysiphe graminis on, 64
sibiricus, Erysiphe graminis on, 64
relation to stripe rust, 885
specialization of Erysiphe graminis on, 397
triticoides, Erysiphe graminis on, 64
villosus, Erysiphe graminis on, 64
virginicus, Erysiphe graminis on, 64
var. glabriflorus, Erysiphe graminis on, 64
var. intermedius, Erysiphe graminis on, 64
Ergot (See Claviceps purpurea)
beetle, 357
Erwinia carotovora, on celery, 140
Erysiphe cichoracearum, reaction of cucurbits to, 533
graminis, specialization and pathogenicity on Poa, 62
specialization on grasses, 394
polygoni, control of with bluestone, 895
Eschscholzia californica, cranberry false blossom on, 809
Ethyl mercury, phosphate (See New Improved Ceresan)
p-toluene sulfonanilide (See DuBay)
Eutettix tenellus, 603, 737
Exosporium, 186
EZEKIEL, WALTER N., 159, 296

Fagus grandifolia, susceptibility to Phytophthora cinnamomi, 172
sylvatica, susceptibility to Phytophthora cinnamomi, 172
False blossom, cranberry, 805
FANG, C. T., (332), (517), (879)
FAWCETT, HOWARD S., 491
Feathery mottle, of sweet potato, 703
Fenugreek, Corticium solani from, 374
Fermate, control of Alternaria on crucifers, 1007
on tomato, 656
on onion smut with, 654
of sorghum smut with, 645
of tomato and potato diseases with, 485
onion seed treatment, 656
pear scab control, 715
seed sweet potato treatment, 486
seed treatment of peas with, 199
Ferric dimethyl dithiocarbamate (See Fermate)
Fertilizer, effect on susceptibility of apple trees to black root-rot, 207
Festuca elatior, Erysiphe graminis on, 64
var. arundinacea, Erysiphe graminis on, 64
gigantea, Erysiphe graminis on, 64
idahoensis, Erysiphe graminis on, 64
obtusa, Erysiphe graminis on, 64
occidentalis, Erysiphe graminis on, 64
octoflora, Erysiphe graminis on, 64
ovina, Erysiphe graminis on, 64
rubra, Erysiphe graminis on, 64
var. commutata, Erysiphe graminis on, 64
scabrella, Erysiphe graminis on, 64
specialization of Erysiphe graminis on, 397
thurberi, Erysiphe graminis on, 64
viridula, Erysiphe graminis on, 64
FIFE, J. M., 910
Fir, Douglas, Poria microspora on, 217
Fire, of oriental arborvitae, 181
FISCHER, GEORGE W., 525
Flag smut, varietal resistance and susceptibility of wheat to, 332

Flavimacula **ipomeae**, sp. nov., sweet potato mottle, 703
Flax, anthracnose resistance in, 688
curly-top and California-aster-yellows of, 603
Fogweed or silverscale, 604
FORBES, I. L., 705
Formaldehyde, fumigation of gas purifying sponge, 655
onion seed treatment, 656
FORSELL, M. J., (486)
Freesia, Fusarium orthoceras var. gladioli on, 922
Frost injury and microflora on soybean, 3
Fruit spot of tomato, 210
Fungi, associated with little leaf of southern pines, 91
in relation to loss in viability of soybean seed, 9
on soybeans in storage, 3
Fungicides
Arasan, control of onion smut with, 654
onion seed treatment, 656
seed treatment of peas with, 194
seed treatment for sorghum smut, 645
bluestone injury to leaves, 897
borax, pre-storage treatment for seed sweet potato, 483
sweet potato seed treatment, 486
Bordeaux mixture, control of Alternaria on tomato, 656
control of tomato and potato diseases with, 485
calcium propionate, pre-storage treatment for seed sweet potato, 483
calomel for the control of the gall disease of Gypsophila, 368
comparison of agar plate and test tube dilution for evaluation of, 485
Compound No. 604, sweet potato seed treatment, 486
control of tomato and potato diseases with, 485
control of Alternaria spp., on crucifers, 1007
control of diseases in tobacco plant bed, 483
control of onion smut with, 654
control of sorghum smut with, 645
control of tomato blights in Virginia, 120
copper carbonate, 645
copper compounds in bean rust control, 489
cuprous oxide, yellow, for control of tomato blights, 121
copper oxychloride sulphate, control of Alternaria on tomato, 656
copper sulphate, basic, control of sorghum smut with, 645
copper sulphate, eradicant spray for powdery mildew, 895
D-D mixture, use in tobacco plant bed, 483
dimethyl dithiocarbamates, control of tomato and potato diseases with, 485
Dithane, control of tomato and potato diseases, 485
in bean rust control, 489
dithiocarbamates, control of bean rust, 489
DuBay 1452-C, control of sorghum smut with, 645
Fermate, control of Alternaria on tomato, 656
control of tomato and potato diseases, 485
onion seed treatment, 656
peas, seed treatment, 199
sweet potato seed treatment, 486
formaldehyde, fumigation of gas purifying sponge with, 655
onion seed treatment, 656
Leytosan, control of sorghum smut with, 645
lime-sulphur in bean rust control, 489
Merc-o-dust, control of sorghum smut with, 645
mercuric chloride, 487
mercuric chloride, for control of the gall disease of Gypsophila, 368
M. T. D. S., control of sorghum smut with, 645
Mycoban, sweet potato seed treatment, 486
naphthoquinone, control of bean rust, 489
New Improved Ceresan, 645
seed treatment of peas with, 194
organic, control of tomato and potato diseases, 485
paradichlorobenzene, 598
pear scab control, 715
Puratized N5-X, control of onion smut with, 654
salts as antidotes to copper in its toxicity to conidia of Sclerotinia fructicola, 54
as antidotes to copper toxicity to fungi, 487
seed treatment of alfalfa, 848
Semesan, seed treatment of peas with, 194
Semesan Bel, sweet potato seed treatment, 486
smut control in sorghum, 645
soil fumigants, 771
Spergon, control of tomato diseases, 485
pre-storage treatment for seed sweet potato, 483
seed treatment of peas with, 194
sweet potato seed treatment, 486
use for sorghum smut, 645
sulphurs, for control of bean rust, 489
control of sorghum smut with, 645
Thiosan, onion seed treatment, 656
sweet potato seed treatment, 486
tribasic copper sulphate, use in control of tomato blights, 121
uramon, use in tobacco plant bed, 483
use of lily bulb scales for evaluating, 488
U. S. R. 604, control of sorghum smut with, 645
value as sweet potato seed and sprout treatment, 486
yellow cuprocide, seed treatment of peas with, 194

Zimate, control of sorghum smut with, 645
zinc sulphate, control of tomato and potato diseases with, 485
Fusarium aquaeductuum, 422
arthrosporioides, 422
avenaceum, 422
damping-off of conifers in relation to temperature and light, 505
damping-off studies in Pinus resinosa, 442
on corn, 552
damping-off of conifers in relation to the host and pathogenicity of, 440
decay of squash during storage, 656
equiseti, 422
graminearum, 422
javanicum, var. radicicola, 422
moniliforme, 422
in cotton seed, 547, 752
martii, soil fumigation for control of, 771
orthoceras, 422
var. longium, 422
var. gladioli, pathogenicity of, 921
oxysporum, 422
in cotton seed, 547
damping-off of conifers in relation to temperature and light, 499
damping-off studies in Pinus resinosa, 442
var. lilii, control of on lily, 488
f. lycopersici, resistance of tomato to, 19
soil fumigation for control of, 771
poae, 422
in relation to concealed damage in peanut, 480
reticulatum, 423
sambucinum, 423
scirpi, damage to cotton seed, 547
var. acuminatum, 423
in seed of cotton, 543
solani, 423
var. martii, 423
var. minus, 423
on soybean seed, 3
sporotrichioides, 423
studies in damping-off of conifers, 498
vasinfectum, 423
damping-off of conifers in relation to temperature and light, 505
yellows, of bean, 655

Gaillardia aristata, cranberry false blossom on, 809
GAINES, J. G., (483)
Gall disease, control of on Gypsophila, 368
Garlic, Phoma terrestris on, 744
Gladiolus, neck rot of, 230
pathogenicity of the vascular Fusarium of, 921
Gloeosporium sp., on tobacco, 598
Glyceryl alkyl resin, spreader for sprays, 897
Glycine max, 951
GOLDSWORTHY, M. C., (489)
Gossypium hirsutum, Rhizoctonia solani on, 378
GOTTLIEB, D., 485
GRAHAM, T. W., (483)
Grape, anthracnose of, in China, 339
Graphium spp., 655
Grass, infection and incubation of stem smut of, 525
specialization of Erysiphe graminis on, 394
GRAVATT, G. F., (162)
Gray leaf-spot, of crucifers, 1002
GRIES, G. A., 654, (656)
Growth substances, stimulating fruit set in tomato, 931
GRUENHAGEN, R. H., 72
Guayule, Pythium root rot of, 636
virus diseases of, 737
GUBA, E. F., 655
Gypsophila paniculata, control of the gall disease of, 368

Halo-blight, of bean, 744
predisposition of oats to, 767
HANNA, W. F., 577
HANSEN, H. N., 220
HARDISON, JOHN R., 62, 394
HARRIS, M. R., 145
HARRISON, G. J., (542)
HARTER, L. L., (695)
HAYES, H. K., (549)
HEGGESTAD, HOWARD E., 754
Helminthosporium gramineum, effect of vernalization on the development of, in barley, 367
inheritance of resistance to, 781
physiologic specialization, 571
new leaf-spot of cowpea and soybean, 488
sativum, 1018
turcicum, 738
leaf blight of corn, 485
physiologic races of, 487
vignae sp. nov., leaf spot of soybean, 830
HENDERSON, R. G., 120
HEPTING, GEORGE H., 106
Herbicides, control of weeds in tobacco plant bed, 483
Heterodera marioni, 481
root destruction by, 936
soil fumigation for control of, 771
HEUBERGER, J. W., 485
Hevea braziliensis, chlorosis of seedling, 487
Periconia blight of, 486
Rhizoctonia sp., on, 739
HEWITT, WM. B., 942
HILDEBRAND, E. M., 47
HIRT, RAY R., 218, 575
Holcus halepensis, Titaeospora andropogonis on, 738
lanatus, Erysiphe graminis on, 64, 397
HOLTON, C. S., 488, (955)
Homeria collina, Fusarium orthoceras var. gladioli on, 921
Hopper burn, control with organic fungicides, 485
HOPPERSTEAD, S. L., 485
Hordeum bulbosum, Erysiphe graminis on, 64
gussoneanum, Erysiphe graminis on, 64

jubatum, 234
Erysiphe graminis on, 64
var. caespitosum, Erysiphe graminis on, 64
murinum, Erysiphe graminis on, 64
nodosum, 234
Erysiphe graminis on, 64
specialization of Erysiphe graminis on, 397
vulgare (See Barley), 234, 243
Erysiphe graminis on, 64
HORSFALL, J. G., (654), 655
Host-parasite relations, food storage in shortleaf pine in relation to little leaf, 106
Pseudomonas tabaci and soybean, 857
Pyrenophora on Bromus, 245
Selenophoma bromigena and Bromus inermis, 236
Host range, Botrytis fabae, 950
cranberry false blossom, 809
Hypoxylon pruinatum, 73
Pyrenophora bromi, 243
Selenophoma bromigena, 234
virus C of potato, 593
HOUSTON, BYRON R., 371, (602)
HOWARD, F. L., 655
Hypoxylon pruinatum, pathogenesis on poplar, 72
Hystrix patula, Erysiphe graminis on, 64, 397

IMLE, E. P., 486
Indigofera sp., 951
Infection experiments with water congested leaves, 1017
Inheritance, barley to stripe, 781
natural water soaking in tobacco, 761
resistance in tomato to Alternaria solani, 25
to Septoria leaf-spot, 16
Insects as vectors, Acinopterus angulatus, 737
Cloanthanus irroratus, 737
Colladonus montanus, 737
Euscelis striatulus, vector of cranberry false blossom, 805
Eutettix tenellus, 603, 737
Macrosteles divisus, 737, 815
vector of aster-yellows virus, 606
Myzus persicae, 591
vector of carnation yellows, 39
Phlepsius spp., 737
Thrips tabaci and mosaic of carnation, 40
Ipomea purpurea, 701
Iris sp., Fusarium orthoceras var. gladioli on, 921
ISELY, DWIGHT, (870)
Ixia spp., Fusarium orthoceras var. gladioli on, 921

JACKSON, L. W. R., 91
JEFFERS, W. F., (483), 486
JENKINS, ANNA E., (339), 486
JENKINS, M. T., 485
JENKINS, WILBERT A., 324
JOHNSON, A. G., 486
JOHNSON, JAMES, 1017
Johnson grass, Helminthosporium turcicum on, 487
JONES, LEON K., 37
JONES, R. C., 655, (656)
Juglans nigra, susceptibility to Phytophthora cinnamomi, 172, 174

Kabatiella nigricans, 977
Kernel smut, control of on sorghum, 645
KIENHOLZ, J. R., 714
KIMMEY, JAMES W., 406
KLOTZ, L. J., (943)
Koeleria cristata, Erysiphe graminis on, 64, 398
KOTILA, JOHN E., 741, 743
KREITLOW, K. W., 152
KUNKEL, L. O., 805

Lagenaria leucantha, reaction to Erysiphe cichoracearum, 534
Late blight, control of, on tomato with copper fungicides, 120
forecasting service, 463
Larix decidua, susceptibility to Phytophthora cinnamomi, 174
leptolepis, susceptibility to Phytophthora cinnamomi, 174
Lathyrus spp., Ascochyta on, 840
LEACH, L. D., 191
Leaf blight, of corn, 485
Leafhopper, oviposition in relation to apple measles, 870
Leaf roll, of potato seedlings, 877
scald, of sugar cane, 135
spot, brown leaf-spot of Bromus inermis, 241
control of, on tomato with copper fungicides, 120
inheritance of resistance of tomato to Septoria, 16
LECLERG, E. L., 877
LEFEBVRE, C. L., 487, (488), 822
Lemon, black pit of, 942
Leptosphaeria, 852
pratensis, on alfalfa seed, 843
LEWIS, RALPH W., 353
Leytosan, control of sorghum smut with, 645
Lespedeza bicolor, 951
Lettuce, artificial transmission of big vein, 484
LEUKEL, R. W., 645
Light relation, to sporulation of Alternaria solani, 483
to tip burn in sugar beet, 910
to urediospore germination of Phragmidium, 458
Lilium dauricum, susceptible to lily-rosette, 131
davidi, susceptible to lily-rosette, 131
var. willmottiae, susceptible to lily-rosette, 131
elegans, susceptible to lily-rosette, 131
formosanum, susceptible to lily-rosette, 130

henryi, susceptible to lily-rosette, 131
leucanthum, susceptible to lily-rosette, 131
longiflorum, susceptible to lily-rosette, 129
nematode infection of, 572
myriophyllum var. superbum, susceptible to lily-rosette, 131
regale, susceptible to lily-rosette, 131
sargentiae, susceptible to lily-rosette, 120
speciosum, susceptible to lily-rosette, 131
umbellatum, susceptible to lily-rosette, 131
use of bulb scales for evaluating fungicides, 488
Lily-rosette, species of Lilium susceptible to, 129
Lima bean, 345
scab of, 488
Lime-sulphur, control of downy mildew with, 901
pear scab control, 715
use in bean rust control, 489
Line pattern virosis of plum, 991
LING, LEE, 417, 885
Linum usitatissimum (See Flax)
Lithocarpus cuspidatus, susceptibility to Phytophthora cinnamomi, 172
densiflorus, susceptibility to Phytophthora cinnamomi, 172
Little leaf, food storage in shortleaf pine in relation to, 106
of southern pines, 91
LIVINGSTON, J. E., (645)
Lolium multiflorum, Erysiphe graminis on, 64, (398)
perenne, Erysiphe graminis on, 64
Longevity, urediospores of stripe rust, 887
Loose smut, method for inoculating barley, 640
LORENZ, ROLLAND C., (671)
LOWE, C. W., (577)
LOWE, JOSIAH L., (218), (575)
Luffa acutangula, reaction to Erysiphe cichoracearum, 534
aegyptiaca, reaction to Erysiphe cichoracearum, 534
Lupinus albus, 951
Lycopersicon esculentum (See Tomato)
hirsutum, resistance to Septoria leaf-spot, 18
peruvianum, resistance to foliage diseases, 931
resistance to Septoria leaf-spot, 18
var. humifusum, resistance to Septoria leaf-spot, 23
Lygus spp., injury on sugar beet, 911

MACHACEK, J. E., 51
Macrosporium cavarae, 253
compactum, 253
nigricans, 253
nigricantium, 253
ricini, 253
sarcinaeforme, use in fungicide evaluation tests, 485
Macrosteles divisus, 606, 737
relation to cranberry false blossom, 815
Magnesium sulphate, as an antidote to copper toxicity to Sclerotinia fructicola, 56
Mahonia fortunei, aecial host of Puccinia graminis, 418
MALOIT, J. C., (1008)
MANNS, T. F., 485, 487
MARSH, PAUL B., 54, 487
MARTIN, W. J., 487
MAY, C., (489)
MCCLELLAN, W. D., 488, 921
MCCUBBIN, W. A., 488
MCINROY, ELIZABETH WISE, 598
MCKINNEY, H. H., 488
MCKENZIE, M. A., 656
Mealybug wilt, influence of plant nutrition on susceptibility to, 316
some etiological aspects of, 305
Media, in relation to sporulation of Alternaria solani, 483
Medicago falcata, 846
officinalis, Ascochyta on, 840
sativa (See Alfalfa)
Rhizoctonia solani on, 378
MELHUS, I. E., 463
Melilotus alba, Ascochyta on, 840
Rhizoctonia solani on, 834
indica, Phoma terrestris on roots of, 744
Rhizoctonia solani on, 834
Mere-o-dust, control of sorghum smut with, 645
Mercurie chloride, control of Alternaria on crucifers, 1006
control of galls on Gypsophila, 368
seed surface sterilizing with, 747
MEYER, V. S., (489)
Microflora in relation to loss of viability and heating of soybeans, 4
MILBRATH, J. A., 607
Mildew on grasses, 394
Milium effusum, Erysiphe graminis on, 64, 398
MILLS, P. J., (705)
Mineral deficiency in relation to viruses of carnation, 43
Moisture content in relation to microflora and viability of soybeans, 8
Monochlorobutanes, soil fumigation with, 777
MOORE, M. B., 549
MOORE, W. D., 935
Morpholine thiuramdisulfide (See M. T. D. S.)
Mosaic, of carnation, 37
of Coleus, 223
cucumber mosaic on guayule, 737
desiccation of the cucumber virus in leaf tissue, 488
grape mosaic transferred by grafting, 940
movement of virus through sugar-cane seed pieces, 705
rugose, effect on yield of potato, 585
sweet potato, 695
Mottle, of myrobalan plum, 47
M. T. D. S., control of sorghum smut with, 645

Mycoban, pre-storage treatment for seed sweet potato, 483
sweet potato seed treatment, 486
Mycosphaerella, 852
on blighted arborvitae, 183
Physostegiae n. sp., leaf spot of Physostegia, 329
pinodes, on garden peas, 565
Myrobalan, 625
Myzus persicae, 591

New Improved Ceresan, alfalfa seed treatment, 849
control of sorghum smut with, 645
seed treatment of peas, 194
Naphthoquinone, control of bean rust, 489
Neck rot, of gladiolus, 230
Nematode, 481
meadow nematode as cause of root destruction, 489
on Easter lilies, 572
root destruction by, 935
prevalence of, on wheat in China, 288
soil fumigants for, 771
Neomaricea gracilis, Fusarium orthoceras var. gladioli on, 921
Nicotiana glutinosa, 701, 737
Brown's river virus on, 593
cranberry false blossom on, 809
water congestion experiments with, 1018
langsdorffii, cranberry false blossom on, 809
tabacum, 701
cranberry false blossom on, 809
predisposition to wildfire by water soaking, 754
water congestion experiments with, 1018
Nierembergia frutescens, cranberry false blossom on, 809
Nigrospora oryzae, of corn, 552
Nitrogen, relation to tip burn of sugar beet, 910
NORRIS, D. O., (591)
Nutrition, in relation to damping-off of conifers, 449

Oak, Strumella canker of, 671
Oats, 234, 243
breeding for crown rust resistance, 143
Erysiphe graminis on, 63
Pseudomonas alboprecipitans on, 486
reaction of hybrids and varieties to stem rust, 549
Septoria nodorum on seed of, 52
specialization of Erysiphe graminis on, 396
water soaking studies, 66
OLIVE, LINDSAY S., 488, 822
Onion, control of onion smut, 654
Phoma terrestris from, 744
seed treatment, 656
Oospores, germination of in Pythium spp., 484
Orange, black pit of, 942
scab of sour orange in China, 340
Orthea vincta, 713
OU, S. H., 565

Paradichlorobenzene, 598
Paratetranychus ununguis, control with dithane, 657
PARKER, K. G., (257), (675)
PARRIS, G. K., 771
Parthenium argentatum (See Guayule)
Pastinaca sativa, cranberry false blossom on, 809
Pathogenicity, of Dutch elm disease, 257
of isolates of Corticium solani, 371
of isolates of Rhizoctonia solani from potato, 132
specialization of Erysiphe graminis on Poa, 62
of Verticillium albo-atrum on Viburnum, 145
Peach, anatomy of buckskin-diseased trees, 610
line pattern virus on, 994
Peach wart, transmission to cherry, 607
Peanut, 346
concealed damage in, 480
nematode damage to, 937
Pear, Elsinöe piri on, 486
Polyporus versicolor on, 574
scab control, 714
Peas, anthracnose of, 565
Botrytis fabae on, 950
control of soil inhabiting fungi on, 777
effect of seed treatment on, 191
seed treatment with Arasan, 194
with Fermate, 199
with New Improved Ceresan, 194
with Semesan, 194
with Spergon, 194
with yellow cuprocide, 194
spray injury to, 898
Pellicularia filamentosa, 740, 742
koleroga, 740
Penicillin, use on crown gall, 521
Penicillium, associated with Fusarium on Iris, 926
damping-off in conifers, 423
notatum, 521
on cotton seed, 752
on soybean, 8, 144
salts as antidotes to copper in its toxicity to, 487
Pepper, pod spot in, 283
Verticillium wilt on, 147
Periconia sp., blight on Hevea rubber tree, 486
Periwinkle, 806
PERSON, L. H., 132
Petriella lindforsii, 655
Petroselinum hortense, cranberry false blossom on, 809
Petunia hybrida, cranberry false blossom on, 809
Phalaris arundinacea, Erysiphe graminis on, 64, 398
Phaseolus spp., 950
lunatus macrocarpus (See Lima bean)
vulgaris, Rhizoctonia solani on, 378

Phenyl mercury urea (See Leytosan)
Phenothiazine, pear scab control with, 715
PHILLIPS, C. E., (487)
Phlepsius spp., 737
Phleum pratense, 243
bacterial streak of, 937
Erysiphe graminis on, 64, 398
Phloem necrosis of elm, 489
Phlox Drummondii, cranberry false blossom on, 809
Phoma, 840
terrestris, on sugar-cane roots, 744
Phragmidium mucronatum, effect of light on germination of urediospores of, 448
effect of temperature on urediospores of, 361
Phymatotrichum omnivorum, survival of, at low temperatures, 296
synthetic culture media for, 159
Physostegia virginiana, Cercospora leaf-spot of, 324
Phytophthora cambivora, chestnut root rot, 167
cinnamomi, root disease of nursery tree stocks, 162
soil fumigation for control of, 771
infestans, 463
control of, on tomato with copper fungicides, 120
parasitica, on Cinchona, 139
wilt and stem canker of Cinchona, 138
specialization of pathogenicity of Erysiphe graminis on Poa, 62
Physiologic specialization, breeding oats for resistance to races of crown rust, 143
of Ceratostomella ulmi, 258
of Erysiphe graminis on grasses, 394
Helminthosporium gramineum, 571
turcicum, 487
vignae n. sp., 829
of Puccinia graminis tritici, 939
of Selenophoma bromigena, 237
specialization of pathogenicity of Erysiphe graminis on Poa, 62
Tilletia caries, new races, 955
distribution of races, 488
foetida, new races, 955
levis, 879
tritici, 879
Ustilago hordei, distribution of races, 489
key for race identification, 519
new races, 970
Urocystis tritici, 332
Phytomonas
albilineans, cause of leaf scald of sugar cane, 137
angulata, 1018
predisposition of tobacco to, 754
coronafaciens, 767
gypsophilae, control of on Gypsophila, 368
stewartii, 767
syringae, black-pit of citrus, 842
tabaci, 754, 1018
tumefaciens, 521
Picea abies, susceptibility to Phytophthora cinnamomi, 174
pungens, 425
susceptibility to Phytophthora cinnamomi, 174
Pimiento, Verticillium wilt of, 147
Pineapple, influence of plant nutrition on susceptibility to mealybug wilt, 316
some etiological aspects of mealybug wilt of, 305
Pine, little leaf of southern pines, 91
Pink rot of Guayule, 638
Pinus banksiana, 425
echinata, little leaf of, 91
relation of food storage to little leaf of, 106
mugo var. mughus, resistance to Phytophthora cinnamomi, 176
nigra austriaca, damping-off studies with Fusarium spp., 449
var. austriaca, 425
palustris, little leaf of, 91
ponderosa, 425
damping-off studies with Fusarium spp., 445
resinosa, 425
damping-off studies, 442, 499
susceptibility to Phytophthora cinnamomi, 173
rigida, little leaf of, 91
strobus, susceptibility to Phytophthora cinnamomi, 174
sylvestris, 425
damping-off studies with Fusarium spp., 445, 505
susceptibility to Phytophthora cinnamomi, 174
taeda, little leaf of, 91
virginiana, little leaf of, 91
PIRONE, P. P., 369
Pisum sativum (See Peas)
sp., Rhizoctonia solani on, 834
PLAKIDAS, A. G., 181
Plane tree, Polyporus versicolor on, 574
Platanus orientalis, susceptibility to Phytophthora cinnamomi, 174
Pleospora rehmiana, 852
Plum, line pattern virosis of, 991
myrobalan mottle and asteroid spot, 47
Polyporus versicolor on, 574
PLUMB, G. H., (656)
Poa arachnifera, Erysiphe graminis on, 64
resistance to Helminthosporium vagans, 70
resistance to Puccinia poae-sudeticae, 70
arctica, Erysiphe graminis on, 64
arida, Erysiphe graminis on, 64
ampla, Erysiphe graminis on, 64
bulbosa, Erysiphe graminis on, 64
canbyi, Erysiphe graminis on, 65
compressa, 234, 243
Erysiphe graminis on, 65
curta, Erysiphe graminis on, 65
cusickii, Erysiphe graminis on, 65
epilis, Erysiphe graminis on, 65
Erysiphe graminis on, 398
gracillima, Erysiphe graminis on, 65
interior, Erysiphe graminis on, 65
juncifolia, Erysiphe graminis on, 65

nemoralis, Erysiphe graminis on, 65
nervosa, Erysiphe graminis on, 65
nevadensis, Erysiphe graminis on, 65
palustris, Erysiphe graminis on, 65
pratensis, 234, 243
after-ripening of spores of Ustilago striaeformis from, 152
Erysiphe graminis on, 65
scabrella, Erysiphe graminis on, 65
secunda, Erysiphe graminis on, 65
sphondyloides, Erysiphe graminis on, 65
stem smut, 530
sterilis, Erysiphe graminis on, 65
trivialis, Erysiphe graminis on, 65
Pod spot, of pepper, 283
POEHLMAN, J. M., 640
Polypogon monspeliensis, Eryspihe graminis on, 65, 398
Polyporus tulipiferus, 220
versicolor, on Asiatic chestnut, 574
Polystictus versicolor, 619
Poplar canker, 72
Populus balsamifera, Hypoxylon pruinatum on, 73
deltoides, Polyporus tulipiferus on, 220
grandidentata, Hypoxylon pruinatum on, 72
tremuloides, Hypoxylon pruinatum on, 72
Poria cocos, on roots of shortleaf pines, 97
microspora, in house timbers, 217
PORTE, W. S., 933
Portraits
Buller, A. H. R., 578
Dopp, E. A., 746
Horne, W. T., 1
Parson, H. E., 282
Rolfs, P. H., 492
Thompson, N. F., 150
Whetzel, H. H., 660
Potassium chloride, antidotes the effect of copper sulphate toxicity to Sclerotinia fructicola, 59
antidote to copper in its toxicity to fungi, 488
Potato, control of nematode on, 780
cranberry false blossom on, 809
effect of rugose mosaic on yield, 585
genetic leaf roll of seedlings, 877
organic fungicides for control of diseases on, 485
pathogenicity of Corticium solani isolates on, 383
of Rhizoctonia isolates from, 132
Rhizoctonia solani on, 378
virus C, 591
Powdery mildew, reaction of Cucurbitaceae to, 533
Pratylenchus sp., root damage by, 935
Predisposition, tobacco to wildfire, 754
PRESLEY, JOHN T., (213)
Prunus caroliniana, Tranzschelia rust on, 572
cerasifera, 625
myrobalan mottle and asteroid spot of, 47
cerasus, 630
ilicifolia, Tranzschelia rust on, 572
var. integrifolia, Tranzschelia rust on, 572
Laurocerasus, Tranzschelia rust on, 572
line pattern virosis on, 991
lusitanica, Tranzschelia rust on, 572
molis, 630
persica, 809
schipkaensis, Tranzschelia rust on, 572
PRYOR, DEAN E., 533
Pseudomonas alboprecipitans, leaf blight of corn, 486
fluorescens, 868
phaseolicola, 744
ribicola, bacterial spot of Ribes, 1008
tabaci, wildfire of soybean, 857
Pseudopeziza medicaginis, 840
Pseudotsuga taxifolia, 425
susceptibility to Phytophthora cinnamomi, 176
Psorosis, technique for hastening foliage symptoms on citrus, 536
Puccinellia distans, Erysiphe graminis on, 65, 398
Puccinia coronata, breeding oats for resistance to, 143
dispersa, 885
glumarum, 885
graminis, 885
aecial host in China, 417
avenae, reaction of oat hybrids and varieties to, 549
tritici, physiologic specialization, 939
triticina, 885
Pullularia pullulans, storage fruit spot of tomato, 210
Puratized N5-X, control of onion smut with, 654
Pyrenophora bromi, on Bromus inermis, 241
Pythium anandrum, organization and germination of oospores, 484
aphanidermatum, soil fumigation for control of, 771
argentatum, technique for isolating, 1031
oligandrum, organization and germination of oospores, 484
periplocum, organization and germination of oospores, 484
salpingophorum, germination and organization of oospores, 484
ultimum, damping-off in conifers, 423
root rot of guayule, 636
seed treatment of peas against, 194
undulatum, organization and germination of oospores, 484
vexans, organization and germination of oospores, 484

Quercus alba, Strumella canker, 671
borealis, susceptibility to Phytophthora cinnamomi, 174
var. maxima, Strumella canker of, 671
coccinea, Strumella canker of, 671
montana, Strumella canker of, 671
susceptibility to Phytophthora cinnamomi, 172, 174
velutina, Strumella canker, 671

Radish, 950
Ramulispora, 739
RANDS, R. D., 745
RANGEL, JEFFERSON F., 1002
RAY, CHARLES, JR., 688
RAWLINS, T. E., 1
REDDY, C. S., (939)
Red-leaf disease, of corn, 487
Red spider, control of with dithane, 657
Red spot, of broad bean, 945
Resistance, barley to stripe, 781
breeding oats for crown rust resistance, 143
cucurbits to Erysiphe cichoracearum, 534
elm to phloem necrosis, 489
flax to anthracnose, 688
tomato to Alternaria solani, 25
to Septoria leaf-spot, 16
varietal resistance of wheat to bunt, 964
vetch to Colletotrichum villosum, 988
REYNARD, GEORGE B., (16), 25, (935)
Rhizopus, on cotton seed, 752
relation to concealed damage in peanut, 480
nigricans, on soybean seed, 4
Rhizoctonia, bud rot of strawberry, 710
cotton leaf-spot pathogen, perfect stage, 741
foliage disease of Hevea brasiliensis, 739
neck rot of gladiolus, 230
solani, damping-off in conifers, 423
parasitism on alfalfa, 832
pathogenicity and culture types of, 371
pathogenicity of isolates of, 132
seed treatment of peas against, 195
soil fumigation for control of, 771
Rhododendron mucronulatum, susceptibility to Phytophthora cinnamomi, 174
Rhubarb, Corticium solani from, 374
Ribes aureum, Pseudomonas ribicola on, 1008
nevadense, defoliating effect of Cronartium ribicola on, 406
roezli, defoliating effect of Cronartium ribicola on, 406
RICHARDS, M. C., 656
Ricinus communis (See Castor bean)
Ring-spot virus, on guayule, 737
ROBERT, A. L., (486)
Robinia pseudoacacia, susceptibility to Phytophthora cinnamomi, 174
RODENHISER, H. A., 488, 955
Root disease, of nursery tree stock caused by Phytophthora cinnamomi, 162
Root knot, control of in tobacco plant bed, 483
Root rot, Pythium ultimum on guayule, 636
Rose anthracnose, in China, 339
Rose, leaf rust of, 361
ROSEN, H. R., 144
Rot, black root rot of apple, 142
crater rot of celery, 138
Nigrospora oryzae rot of ears of corn, 552
Rubber tree (See Hevea)
RUDOLPH, B. A., 542
Russian thistle, 604
Rust, on species of Prunus, 572
control of on bean, 489
RYAN, MARGARET MILBURN, (162)
Rye, 234, 243
Erysiphe graminis on, 65, 398
field inoculation with Claviceps purpurea, 353
Puccinia dispersa on, 885
stripe rust on, 885

Salpiglossis sp., cranberry false blossom on, 809
Salsola kali, var. tennuifolia, 604
Scab, of castor bean, 339
of hyacinth bean, 339
of Lima bean, 488
of sour orange, 340
Scabiosa atropurpurea, cranberry false blossom on, 809
Schizanthus, cranberry false blossom on, 809
SCHNEIDER, HENRY, 610
Sclerotinia fructicola, salts as antidotes to copper in its toxicity to, 488
salts as antidotes to copper in its toxicity to conidia of, 54
use in evaluation of fungicides, 485
sclerotiorum, 711
on alfalfa seed, 843
Sclerotium bataticola, damping-off in conifers, 423
in relation to concealed damage in peanut, 480
Secale cereale (See Rye)
Seed dissemination, anthracnose of garden peas, 569
of Septoria nodorum, 51
Seedling root-rot, of guayule, 636
Seed-borne pathogens of alfalfa, 843
Seed treatment, of alfalfa seed, 848
onion, 656
peas, 191
with Arasan, 194
with Fermate, 199
with New Improved Ceresan, 194
with Semesan, 194
with Spergon, 194
with yellow cuprocide, 194
wheat for nematodes, 290
SEELER, E. V., JR., (655)
Selenophoma bromigena, on Bromus inermis, 233
Semesan, alfalfa seed treatment, 849
control of Alternaria on crucifers, 1006
seed treatment of peas with, 194
Semesan Bel, sweet potato seed treatment, 486
Septoria lycopersici, 1018
control of, on tomato with copper fungicides, 120
resistance of tomato to, 16
nodorum, prevalence on cereal seed in Canada, 51
Serology, Pseudomonas tabaci, 859
Setaria, Pseudomonas alboprecipitans from, 486
SEVERIN, HENRY H. P., 603, 738
SHANOR, LELAND, (210)
SHERWIN, H. S., (487)
Shortleaf pine, little leaf of, 91

Sphaceloma ricini, on castor bean in China, 447
Silverscale, 604
Sitanion, Erysiphe graminis on, 398
hystrix, 234
Erysiphe graminis on, 65
jubatum, Erysiphe graminis on, 65
SLEETH, BAILEY, 636, 671, 1031
SMITH, CLAYTON O., 574, 943
SMITH, FLOYD F., (129)
SMITH, OLIVER F., 832
SMITH, PAUL G., (191)
SMITH, T. E., (483)
Smut, barley, new physiologic races, 970
control of on sorghum, 645
infection and incubation of stem smut of, 525
onion, control of with fungicides, 654
Soft rot, of celery, 140
Soil fumigation, 489
Soil, fumigants, 771
Soja max (See Soybean)
Sooty stripe, of sorghum, 738
Sophora japonica, 951
Sorghum, Helminthosporium turcicum on, 487
Pseudomonas alboprecipitans on, 486
smut control and effect of fungicides on storage, 645
sooty stripe of, 738
Soybean, Helminthosporium leaf-spot of, 488, 822
influence of fungi on storage of, 3
Penicillium disease of, 144
wildfire disease of, 857
Sparaxis, Fusarium orthoceras var. gladioli on, 921
Spergon, alfalfa seed treatment, 849
control of Alternaria on crucifers, 1006
control of damping-off in spinach, 777
control of tomato and potato diseases, 485
pre-storage treatment for sweet potato, 483
seed treatment of peas, 194
sweet potato seed treatment, 486
use for sorghum smut, 645
Sphaceloma arachidis, 350
diseases in Yunnan, China, 339
rosarum, on rose in China, 339
Sphacelotheca sorghi, control of on sorghum, 645
Sphaeropsis ellisii, 177
Spinach, control of soil-inhabiting fungi on, 777
Spinacia oleracea, Rhizoctonia solani on, 378
Sporidesmium acerina, synonym of Ansatospora acerina, 220
Sporocybe Borzinii, 655
Spraying, new developments in, 485
Spreaders, use with sprays, 896
SPROSTON, T., JR., (654), 656
Spruce, Poria microspora on, 217
Spruce mite, control with dithane, 657
Squash, Corticium solani from, 374
skin changes in relation to decay during storage, 656
Stagonospora meliloti, on alfalfa seed, 843
STAKMAN, E. C., 549, 577, (659)
Stalk rot, of corn, 486
STANDEN, J. H., 552
Staphylococcus aureus, 521
STEINER, G., 489, 937
Stemphylium, salts as antidotes to copper in its toxicity to, 487
solani, resistance of tomato to, 19
Stem rust, reaction of oat hybrids and varieties to, 549
STEVENSON, E. C., 249
STEVENSON, J. A., (486)
Stewart's wilt, predisposition of corn to, 767
Stilbaceous mold, 655
STODDARD, E. M., 656
Strawberry, Corticium solani from, 374
red spider control with dithane, 657
Rhizoctonia bud rot of, 710
Streak, of carnation, 37
of tobacco and Brazilian "necrose branca," 1029
Streptanthera cuprea, Fusarium orthoceras var. gladioli on, 921
Stripe, effect of vernalization on the development of barley stripe, 367
rust, epidemiology studies on, 885
Strumella coryneoidea, oak canker, 671
STUART, N. W., (488)
Sudan gress, Helminthosporium turcicum on, 487
Pseudomonas alboprecipitans on, 486
Sugar beet, 739, 741
curly-top virus on guayule, 737
pathogenicity of Corticium solani on, 385
tip burn in relation to light and nitrogen, 910
Sugar cane, chlorotic streak, 723
leaf scald of, 135
movement of mosaic virus through seed pieces, 705
Phoma terrestris on roots of, 744
Sulphur, control of bean rust, 489
control of powdery mildew with, 895
control of sorghum smut with, 645
pear scab control, 715
Sunscald, of pepper, 283
Sweet potato, pre-storage treatments for seed, 483
fungicides for sweet potato seed and sprouts, 486
graft-transmissible virus of, 695
SWINGLE, R. U., 489
Swiss chard, tip burn on, 911

Tagetes erecta, cranberry false blossom on, 809
TAPKE, V. F., 489, 970
Taxonomy of Alternaria ricini, 252
Taxus baccata, susceptibility to Phytophthora cinnamomi, 174
cuspidata, susceptibility to Phytophthora cinnamomi, 174
media, susceptibility to Phytophthora cinnamomi, 174
TAYLOR, CARLTON F., 210

Technique, agar medium for isolating bacteria-free Pythium, 1030
apparatus for the growth of plants under controlled temperature levels, 511
determination of carbohydrate content in pine storage tissue, 110
field inoculation of rye with Claviceps purpurea, 355
hastening foliage symptoms of psorosis of citrus, 535
inoculating barley with loose smut, 640
removing nematode-infected seeds of wheat, 292
study of factors that influence the after-ripening of chlamydospores of Ustilago striaeformis, 152
testing flax seedlings for anthracnose resistance, 688
Temperature, effect of low temperature on survival of Phymatotrichum omnivorum, 296
effect of, on the Dutch elm disease, 302
TERVET, IAN W., 3
Tetrachloro parabenzoquinone (See Spergon)
Tetramethylthiuramdisulfide (See Arasan)
Tetranychus bimaculatus, control of with dithane, 657
Thielavia terricola, from cotton fabric and soil, 484
Thielaviopsis basicola, 1018
Thiosan, onion seed treatment, 656
sweet potato seed treatment, 486
THOMPSON, R. C., 484
Thuja orientalis, blight of, 181
Tilletia caries, distribution of races, 488, 955
foetida, distribution of races, 488, 955
levis, physiologic specialization, 879
tritici, physiologic specialization, 879
TINT, HOWARD, 421, 440, 498, 511
Tip burn, of sugar beet, in relation to light and nitrogen, 910
Titaeospora andropogonis, sooty stripe of sorghum, 738
Tobacco, anthracnose of, 598
disease and weed control in plant bed, 483
water-soaking studies in, 754
Tobacco-mosaic virus, on guayule, 737
Tomato, 806, 950
control of Fusarium oxysporum f. lycopersici by soil fumigation, 778
control of tomato blight in Virginia, 120
cranberry false blossom on, 809
crossing with disease-resistant stock, 931
organic fungicides for control of diseases on, 485
Pullularia storage fruit-spot of, 210
resistance to Alternaria solani, 25, 933
resistance to Septoria leaf-spot, 16
Rhizoctonia solani on, 378
water-soaking studies, 66
TOMPKINS, C. M., (220)
Torula **marginata** sp. nov., on roots of Pinus spp., 98
Toxicity, copper fungicide toxicity to tomato-leaf pathogens, 124
toxins in relation to tip burn of sugar beet, 919
diseases, salivary secretion of Xerophloea toxic to guayule, 738
Tragopogon porrifolius, cranberry false blossom on, 809
Transmission, big vein of lettuce, 484
carnation viruses, 39
Coleus mosaic, 227
cranberry false blossom, 805
mosaic of grape by grafting, 940
peach wart to cherry, 607
sweet potato virus by graft, 699
virus C of potato, 593
Tranzschelia pruni-spinosae, rust of evergreen Prunus species, 572
Tribasic copper sulphate, control of tomato blight, 121
Trifolium alexandrinum, Rhizoctonia solani on, 834
hybridum, Ascochyta on, 840
pratense, Ascochyta on, 840
Rhizoctonia solani, 834
Trichlorobutanes, soil fumigation with, 777
Trichoderma viride, on soybean seed, 4
Trichosanthes anguina, reaction to Erysiphe cichoracearum, 534
Trisetum, Erysiphe graminis on, 398
flavescens, Erysiphe graminis on, 65
spicatum, Erysiphe graminis on, 65
Triticum aestivum (See Wheat)
polonicum, 291
timopheevi, resistance to bunt, 965
turgidum, resistance and susceptibility to flag smut, 332
vulgare, 234, 243
Tritonia spp., Fusarium orthoceras var. gladioli on, 921
Tuckahoes, on roots of shortleaf pines, 97
Tylenchus tritici, prevalence of, on wheat, 288
TYLER, L. J., 257, 302, 675
Typhlocyba pomaria, relation to apple measles, 875

Ulmus americana, 258
phloem necrosis in, 489
Uramon, use in tobacco plant bed, 483
Urocystis cepulae, control of with fungicides, 654
tritici, key for race identification, 336
physiologic specialization in, 332
Ustilago hordei, 801
physiologic races, 489, 519, 970
hypodytes, 525
nigra, 971
nuda, method for inoculating barley with, 640
spegazzinii, mode of infection and incubation period of, 525
var. agrestis, 525
striaeformis, after-ripening of chlamydospores, 152
U. S. R. 604, control of sorghum smut with, 645

Vaccinium macrocarpon, false blossom studies, 805

Variation, of Selenophoma bromigena, 239
Venturia pyrini, control of, 714
Veronica peregrina, cranberry false blossom on, 809
Verticillium albo-atrum, on cotton seed, 542
wilt and die-back of Viburnum, 145
Vetch, Colletotrichum villosum on, 977
Viburnum, Verticillium wilt and die-back of, 145
Vicia americana, Ascochyta on, 840
calcarata, Rhizoctonia solani, 834
Colletotrichum on, 977
faba, red spot of, 945
Vigna sinensis, 951
Helminthosporium leaf spot of, 822
Vinca rosea, 805
Virus, anatomy of buckskin diseased peach and cherry trees, 610
aster-yellows on flax, 603
aster yellows on guayule, 737
beet mosaic on guayule, 737
big vein, transmission of in lettuce, 484
C virus, from potato, 591
carnation, 37
celery mosaic on guayule, 737
chlorotic streak of sugar cane, 723
cucumber mosaic and desiccation in leaf tissue, 488
on guayule, 737
curly top of flax, 603
diseases of guayule, 737
effect of rugose mosaic on yield of potato, 585
Flavimacula **ipomeae,** sp. nov. sweet-potato mottle, 703
graft-transmissible mosaic of grape, 940
graft-transmissible virus of sweet potato, 695
heat treatment for cranberry false blossom, 817
Lilium species susceptible to lily-rosette, 129
line pattern virosis of plum, 991
movement of mosaic virus through sugarcane seed pieces, 705
ring-spot virus on guayule, 737
sugar-beet curly-top virus on guayule, 737
technique for hastening psorosis symptoms, 535
tobacco-mosaic on guayule, 737
tobacco streak in relation to Brazilian ''necrose branca,'' 1029
transmission of peach wart to cherry, 607
X virus, potato, 589
Y virus, potato, 589
Vitis vinifera, 940

WALKER, E. A., 598
WALKER, H. B., (933)
WALKER, J. C., 565
WALKER, M. N., 482
WALLACE, JAMES M., 535
WALLIN, J. R., 939
Walnut, Phytophthora root disease, 167
WANG, H. R., (332), (879)
Water congestion of leaves, 1017
Watermelon, galls on roots of citron-watermelon hybrids, 480
Water-soaking of tobacco, 754
Watsonia sp., Fusarium orthoceras var. gladioli on, 921
Weeds, control of, in tobacco plant bed, 483
WEIMER, J. L., 977
Wheat, epidemiology studies on stripe rust of, 885
Erysiphe graminis on, 65, 398
prevalence of nematodes on, 288
Pseudomonas alboprecipitans on, 486
relative virulence of Tilletia to, 962
Septoria nodorum on seed of, 52
varietal resistance and susceptibility to flag smut, 332
Wheat grass, crested (See Agropyron cristatum)
slender (See Agropyron trachycaulum)
WHITAKER, THOMAS W., 533
White pine blister rust, 406
Wildfire, predisposition of tobacco to, 754
soybean, 857
WILLISON, R. S., 991
WILSON, COYT, 480
Wilt, of common bean, longevity of the pathogen, 743
etiological aspects of mealybug wilt, 305
Phytophthora wilt of Cinchona, 138
Verticillium wilt of Viburnum, 145
Wisteria sinensis, 945

Xanthomonas phaseoli, 744
translucens var. **phleipratensis** var. nov., bacterial streak of Phleum pratense, 939
vignicola, bacterial canker of cowpea, 487
Xerophloea vanduzeei, salivary secretion toxic to guayule, 738
Xylaria mali, black root-rot of apple, 142, 207

YARWOOD, C. E., 895
YEAGER, A. F., (656)
Yellows, of carnation, 37
YIN, SIN-YÜN, (879), 940
YU, T. F., 332, 517, 879, 945

ZAUMEYER, W. J., 489
Zea mays (See Corn)
ZELLER, S. M., 607
Zimate, control of sorghum smut with, 645
Zinc-Bordo, pear scab control with, 715
Zinc dimethyl dithiocarbamate (See Zimate)
Zinc sulphate, control of tomato and potato diseases with, 485
pear scab control with, 715

ERRATA, VOLUME 34

Page 143, line 1, *read* Tilletia tumefaciens was founded by Sydow (See 5) *for* Tilletia tumefaciens Sydow

Page 145, *add* to literature cited, 5. Sydow, H. and P., and E. J. Butler. Fungi Indiae Orientalis. Pars IV. Ann. Mycol. Berl. **10**: 244–280. 1912

ERRATA, VOLUME 35

Number 2, Table of Contents, *read* H. R. Rosen *for* H. Rosen

Page 119, item 9 in literature cited, *read* Root defects and fungi *for* Root defects

Page 129, line 4, *read* presumably *for* presumbaly

Page 187, line 5, *read* Romania *for* Roumania

Page 239, item 3 in literature cited, *read* 1919 *for* 1939

Page 315, item 7 in literature cited, *read* 1945 *for* 1944

Page 340, line 41, *read* Tong-kin *for* Tungkin

Page 341, line 14, *read* D. C. Edwards *for* E. J. Edwards

Page 545, line 16, *read* In 1941 the percentage *for* In 1939 the percentage

Page 558, line 27 and Table 3, Col. 4, line 2, *read* 26.9 *for* 19.7

Page 743, line 2, *read* Pellicularia *for* Pellicullaria

Page 767, line 17, *read* X217 *for* X216